

REMARKS

Claims 1, 4-11, 16 and 18-23 are pending in the application. No new matter has been entered. In light of the following remarks, favorable reconsideration of this rejection is earnestly solicited.

Claim Rejections - 35 U.S.C. §102

Claims 18 and 20-23 stand rejected under U.S.C. § 102(e) as being anticipated by *Masuda* (US Publication 2002/0172031).

Independent Claim 18:

The Examiner states *Masuda* teaches a light guiding part on which light is incident from said light source (Fig. 24, reference number 20b). Office Action, page 2, paragraph 3 referring to FIG. 24. However, two parts 20b and 20b in the light guide plate 20, sandwich another part 20a, such that one of the parts 20b and 20b opposes to the other in the direction of the light emission to the outside. Thus, *Masuda* does not disclose “a step-like structure formed on a surface of said light guiding part opposite to the side on which the touched position is to be detected (emphasis added)” of the present invention.

Referring to FIG 15A and FIG. 24, *Masuda* merely discloses a structure having “alternate arrangement of the tilted regions 26a1 and the vertical region 26a2 (*Masuda*, page 10, paragraph [0149])” formed in the parts 20b and 20b.

Further, in *Masuda*'s configurations, on one surface of the parts 20b and 20b, there is the lower electrode 32, and on the other surface opposite to the one surface, there is the circularly polarizing plate 114. Either surface is not provided with any element corresponding to a "step-like structure" of the present invention.

As such, Applicants respectfully submit that *Masuda* does not disclose or fairly suggest the required features of claim 18.

Claim Rejections - 35 U.S.C. §103

Claims 1, 4, 6, 16 and 19 are rejected under U.S.C. § 103(a) as being unpatentable over *Masuda* in view of *An* (US Publication 2002/0154250).

Independent Claim 1

In the current office action, the Examiner acknowledges that the references fail to teach the touch panel and light guide integrated as one substrate. However, the Examiner argues that this feature would be obvious, even though it is not disclosed in any of the cited references. In addition, the Examiner relies on *In re Larson*¹ in order to argue that claim 1 is unpatentable over *Masuda* in view of *An*.

The Examiner uses the decision of *In re Larson*, as in the previous Office Actions, to argue that at the time the invention was made it would have been obvious to one skilled in the art to

¹ 340 F.2d 965, 144 USPQ 347 (CCPA 1965).

combine the substrates taught in *An* and *Masuda*. Applicants also respectfully submit that the decision of *Schenck v. Norton Corp.*² is more applicable and on point.

Unlike the cited references in *Larson*, neither *Masuda* nor *An* teaches or suggests the advantage of reducing manufacturing costs by combining substrates. In *Masuda*, the disclosure teaches two separate light guiding parts and how to efficiently manufacture those parts *separately* (see paragraphs 0136 and 0145). *An* makes no mention of combining substrates to reduce the costs of manufacturing. In order to support the argued position, Applicants respectfully submit that the Examiner must present references that teach the improvement of reducing the number of optical interfaces to reduce manufacturing costs.

The Applicants' disclosure does not teach the reduction of manufacturing costs as the Examiner has suggested. In fact, Applicants' disclosure teaches the opposite to be true. In paragraph 0022 of the application it is disclosed that the production process is simple when the touch panel and a substrate are produced separately and then bonded together using an adhesive agent. No part of the Applicants' disclosure discusses manufacturing costs in relation to combining the two substrates. Therefore, Applicants submit that the Examiner is required to provide support, in the form of prior art references, for the above assertion that it would have been obvious to combine the substrates.

² *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983). (Claims were directed to a vibratory testing machine (a hard-bearing wheel balancer) comprising a holding structure, a base structure, and a supporting means which form "a single integral and gaplessly continuous piece." Nortron argued that the invention is just making integral what had been made in four bolted pieces. The court found this argument unpersuasive and held that the claims were patentable because the prior art perceived a need for mechanisms to dampen resonance, whereas the inventor

In addition, Applicants ask the Examiner to present support for the statement that “it is common knowledge to one of ordinary skill in the art that combining two optical substrates reduces the optical interfaces and yields better visibility due to the fact that the light has less obstruction to pass through” (see page 11, first paragraph of the Office Action dated June 4, 2007).

While the Examiner’s cited passage of Larson is correct, the court also stated that the improvements in the Larson invention were suggested by the cited references.³ Furthermore, the Board of Patent Appeals and Interferences noted that the new feature in Larson “does not contribute to a better heat transfer in appellants’ construction.”⁴ The court then agreed with the board and stated:

We agree with the board that the claim defines no structure not shown by Tuttle et al. [prior art reference] which would afford an unobvious heat transmission and therefore does not distinguish over the applied reference.⁵

Thus, the court is finding the Larson invention obvious because it is providing *no improvement over the prior art reference*, it is merely combining two parts.

The *present* invention on the other hand specifically points out in the specification one of the benefits derived from having the light guiding part and light guiding an emitting part constituting a single substrate. In the Background of the Invention section, on page 4, it states:

eliminated the need for dampening via the one-piece gapless support structure, showing insight that was contrary to the understandings and expectations of the art.

³ *In re Larson*, 52 C.C.P.A. 930, 935.

⁴ *In re Larson*, 52 C.C.P.A. 930, 934.

In these optical paths, there are four optical interfaces.... Therefore, the incident light is reflected in the respective optical interfaces as indicated by the broken lines in FIG. 2. There is a problem that the reflected light indicated by the broken lines becomes noises and the amount of useful light is reduced and visibility is therefore impaired.

Thus the *present* invention has the advantage of having fewer optical interfaces which lead to more useful light and better visibility. The Examiner acknowledges this feature is not disclosed in *An*, and furthermore, it does not appear to be suggested by *An* either.

Additionally, as noted in MPEP § 2144.04(V)(B), *Schenck v. Norton Corp.* holds that an integration of parts can be patentably non-obvious. In *Schenck*, the court affirmed the district court's dismissal of the argument that "a consolidation of elements can never rise to the level of patentable invention."⁶ The court noted "nothing of record that would suggest the replacement of [the claimed] structure...."⁷ In the present application, the Examiner has indicated no suggestion in any of the references to have the light guiding part and the light guiding and emitting part, where the light guiding part propagates an ultrasonic wave, be formed in one element.

Thus, similar to *Schenck*, the present invention eliminates a need for two surfaces/parts and replaces it with one surface/part. As indicated earlier, none of the cited reference provides any suggestion of having a light guiding part and light guiding and emitting part be one substrate.

In the response filed on May 25, 2006 Applicants presented the argument that "the glass substrate (element 1 figure 3) serves at least two functions; *propagating a surface acoustic wave*

⁵ *In re Larson*, 52 C.C.P.A. 930, 934.

⁶ *Schenck v. Norton Corp.*, 713 F.2d 782, 784.

for detecting a touched position, and propagating light from a linear light source to emit the light to a reflective-type liquid crystal display,” and that these features were not disclosed by *An*. The Examiner indicates that *An* does teach these features in figure 11, reference 120. The Examiner also cited to column 5, paragraph 59. There *An* states “an ultrasonic wave touch panel with the light guide integrally formed in the touch panel.” Emphasis added. The Examiner stated that “figure 11 of *An* clearly teaches only having one integrated structure to be used in addition to an LCD....”

However, in the following paragraph 60 of *An* it states, “The **laminating** operation of the touch panel with the light guide integrally formed therein according to the present invention and of addition of it as the input device to the frontlight LCD will be described as follows.” Emphasis added. Thus *An* does not disclose the claimed invention, “a light guiding and emitting part for guiding light through said light guiding part so as to emit light as planar light to an outside “**and**” said light guiding part propagates an ultrasonic wave through the optically transparent substrate,” “wherein said light guiding part and light guiding and emitting part constitute a single optically transparent substrate.”

Paragraph 61 of *An* continues:

A method for **laminating** a touch panel with a light guide integrally formed therein by laminating the light guide on an upper glass sheet of a frontlight LCD and then laminating a touch panel as an input device on the light guide Emphasis Added

⁷ *Schenck v. Norton Corp*, 713 F.2d 782, 785.

Claim 1 requires in part “said light guiding and emitting part propagates an ultrasonic wave through an optically transparent substrate and senses a change in a propagation state of the ultrasonic wave due to a touch of an object with said substrate so as to detect a position where the object is touched. Emphasis added. *An* requires two components to achieve what is required by 1 component in claim 1.

Thus, when *An* discloses “a touch panel with the light guide integrally formed in the touch panel,” it is referring to paragraph 61, laminating the light guide and the touch panel.

Therefore, Applicants respectfully submit that the feature requiring *the light guiding part guides light and also propagates an ultrasonic wave*, is not disclosed by the cited references, and as such, submit that claim 1 as herein presented is in condition for allowance.

Independent Claim 16:

As claim 16 contains similar features to claim 1, the arguments presented above regarding claim 1 also apply to claim 16. As such, Applicants respectfully submit claim 16 is presently in condition for allowance.

Dependent Claims 4-11 and 19-23:

As the dependent claims are ultimately dependent upon either claims 1, 16 or 18, the arguments presented above regarding these claims also apply to their dependent claims. As such, Applicants respectfully submit the dependent claims are presently in condition for allowance.

Application No.: 10/642,640
Art Unit: 2629

Response
Attorney Docket No.: 030931

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims are presently in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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